

WATERBODY DATA FORM

ENSR | AECOM

☒ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Other:

Feature ID #: S8AHK006

Stream/Waterbody Name (if known): MITCHELL CR.

Associated Wetland ID #:

Date: 7/5/08		Project Name & No.: Keystone XL-10623-007-803A		Milepost: 479.0	
Investigators: 8A		State/County: SD/HK		Quad Name: MIDLAND	
Logbook No.: 2		Logbook Page No.: 107		Tract No.: ML-SD-HK-11770.000	
				Picture No.: S8AHK006_N,S,W	
PHYSICAL ATTRIBUTES					
Waterbody Sketch Plan					
Please include: Directional & North Arrow, Centerline, Length of feature, Distances from Centerline, Photo Locations, and Survey corridor					
Angle of Crossing at Centerline: 90°					
Waterbody Type		<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other:			
Stream Flow		<input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input checked="" type="checkbox"/> Very Slow <input type="checkbox"/> None		Flow type <input checked="" type="checkbox"/> Perennial (Flows year round) <input type="checkbox"/> Seasonal (Continuous flow ≥ 3 months) <input type="checkbox"/> Intermittent (Flows <3 months) <input type="checkbox"/> Ephemeral (Flows only in response to rainfall)	
Subsurface Flow?		Direction of Flow where it crosses CL: S (N, NE, E, SE, S, SW, W, NW) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown			
OHWM Width (ft.):		7		Sinuosity <input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering	
Stream Width (ft.)		Top of Bank (at crossing location): 30		Water Surface (at crossing location): 7	
Stream Depth (in.)		<input type="checkbox"/> 0-3 <input type="checkbox"/> 3-6 <input checked="" type="checkbox"/> 6-12 <input type="checkbox"/> 12-18 <input type="checkbox"/> 18-24 <input type="checkbox"/> 24-36 <input type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+			
OHWM Indicator		<input type="checkbox"/> Clear natural line on bank <input type="checkbox"/> Wrack line <input type="checkbox"/> Shelving <input type="checkbox"/> Scour <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Bent, matted or missing vegetation <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Water staining <input type="checkbox"/> Soil character changes <input type="checkbox"/> Sediment deposition <input type="checkbox"/> Sediment sorting <input type="checkbox"/> Litter and debris <input type="checkbox"/> Leaf litter disturbed <input type="checkbox"/> Other:			
Bank Height (ft.) (looking downstream)		Left: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input checked="" type="checkbox"/> 6-8 <input type="checkbox"/> 8+			
		Right: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input checked="" type="checkbox"/> 6-8 <input type="checkbox"/> 8+			
Bank Slope (looking downstream)		Left: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input checked="" type="checkbox"/> 1:1 <input type="checkbox"/> Vertical			
		Right: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input checked="" type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input type="checkbox"/> Vertical			

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QUALITATIVE ATTRIBUTES					
Water Appearance (check all that apply)	Clear <input type="checkbox"/>	Turbid <input type="checkbox"/>	Sheen on surface <input type="checkbox"/>	Floating algal mats <input type="checkbox"/>	Water Color: BROWNISH-OLIVE
	Slightly Turbid <input type="checkbox"/>	Very Turbid <input checked="" type="checkbox"/>	Greenish color <input checked="" type="checkbox"/>	Obvious surface scum <input type="checkbox"/>	
Other:					
Stream Substrate %	Silts/ Clay 70	Cobbles	Bedrock	Sands 15	Gravel 5
	Concrete	Muck 10	Vegetation:		
Other: Explain:					
Aquatic Habitats (check all that apply)	Sand Bar <input type="checkbox"/>	Gravel Riffles <input type="checkbox"/>	In-stream emergent plants: <input type="checkbox"/>		
	Gravel Bar <input type="checkbox"/>	Deep Pools <input type="checkbox"/>	In-stream submerged plants: <input type="checkbox"/>		
	Mud Bar <input type="checkbox"/>	Bank root systems <input checked="" type="checkbox"/>	Fringing Wetlands: <input type="checkbox"/>		
	Undercut Banks <input type="checkbox"/>	Overhanging trees/shrubs <input checked="" type="checkbox"/>			
Aquatic Organisms Observed (check all that apply)	Waterfowl <input type="checkbox"/>	Fish (adult) <input type="checkbox"/>	Turtles <input type="checkbox"/>	Other: NONE	
	Snakes <input type="checkbox"/>	Fish (juvenile) <input type="checkbox"/>	Frogs <input type="checkbox"/>	OBS.	
Invertebrates:					
Riparian Zone	Width of natural vegetation zone from edge of active channel out onto flood plain (FT): 35				
	Circle vegetative layers: trees <input checked="" type="checkbox"/> shrubs <input checked="" type="checkbox"/> herbs <input checked="" type="checkbox"/>				
	<input type="checkbox"/> Significant bare areas within riparian zone <input type="checkbox"/> Evidence of non-buffered concentrated flows				
Tributary is	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial (Man-Made) <input type="checkbox"/> Manipulated				
Channel Condition:	Channelization or Braiding <input type="checkbox"/>	Unnatural straightening <input type="checkbox"/>	Downcutting <input checked="" type="checkbox"/>	Dikes/Berms <input type="checkbox"/>	Excessive bank erosion <input checked="" type="checkbox"/>
					Other
Disturbances	Livestock access to riparian zone <input checked="" type="checkbox"/>		Manure in stream or on banks <input type="checkbox"/>		
	Waste discharge pipes present <input type="checkbox"/>		Other: BANK SLUMPING		

Describe Habitat Characteristics, Aquatic & Terrestrial Diversity:	Habitat ID No.:
GREEN ASH OVERSTORY; SNOWBERRY/ HONEY SUCKLE (?) / CHOKECHERRY TO WEST. WHEATGRASS/ JAPANESE BROME UNDERSTORY. ERODIBLE CLAY SOILS HAVE CREATED INCISED CHANNELS. PILES OF DRIFT- WOOD FROM HIGH FLOWS ALONG BANKS. SOME RIFFLES.	

Comments (e.g. pipeline crossing angle, construction constraints, erosion potential, existing disturbances, and meanders)
SOILS APPEAR ERODIBLE
STREAM QUALITY High <input type="checkbox"/> Moderate <input type="checkbox"/> Low <input checked="" type="checkbox"/>